

CLAIMS:

5 1. A return-side filter for filtering a return fluid in a vehicle transmission, the return-side filter comprising:

a pan having a bottom surface;

an inlet operable to direct the return fluid into the pan;

a filter media spaced above the bottom surface and the inlet and at least substantially spanning the pan and operable to filter the return fluid; and

an outlet located above the filter media and operable to release the return fluid.

10 2. The return-side filter as set forth in claim 1, further including spacers projecting upwardly from the bottom surface of the pan and operable to support the filter media above the bottom surface.

15 3. The return-side filter as set forth in claim 1, further including a lid positioned above the filter media.

4. The return-side filter as set forth in claim 3, wherein the outlet comprises a slot in the lid.

5. A vehicle transmission, utilizing a fluid, the vehicle transmission comprising:

a sump operable to receive the fluid via a sump inlet;

a return-side filter operable to filter at least a return fluid portion of the fluid, the return-side filter including -

a pan having a bottom surface;

an return-side inlet coupled with the sump inlet and operable to direct the return fluid into the pan;

a filter media spaced above the bottom surface and the return-side inlet and at least substantially spanning the pan and operable to filter the return fluid; and

an outlet located above the filter media and operable to release the return fluid.

6. The return-side filter as set forth in claim 5, further including spacers projecting upwardly from the bottom surface of the pan and operable to support the filter media above the bottom surface.

7. The vehicle transmission as set forth in claim 5, wherein the return fluid is released into the sump.

8. The return-side filter as set forth in claim 5, further including a lid positioned above the filter media.

9. The return-side filter as set forth in claim 8, wherein the outlet comprises a slot in the lid.

10. A return-side filter for filtering a return fluid in a vehicle transmission, the return-side filter comprising:

a lid having a top surface;

an inlet operable to direct the return fluid into the lid;

5 a filter media spaced below the top surface and the inlet and at least substantially spanning the lid and operable to filter the return fluid; and  
an outlet located below the filter media and operable to release the return fluid.

10 11. The return-side filter as set forth in claim 10, further including spacers projecting downwardly from the top surface of the lid and operable to space the filter media below the top surface.

12. The return-side filter as set forth in claim 10, further including a pan positioned below the filter media.

15 13. The return-side filter as set forth in claim 12, wherein the outlet comprises a slot in the pan.

14. A vehicle transmission utilizing a fluid, the vehicle transmission comprising:

a sump operable to receive the fluid via a sump inlet;

a return-side filter operable to filter at least a return fluid portion of the fluid, the return-side filter including -

a lid having a top surface;

a return-side inlet coupled with the sump inlet and operable to direct the return fluid into the lid;

a filter media spaced below the top surface and the inlet and at least substantially spanning the lid and operable to filter the return fluid; and

an outlet located below the filter media and operable to release the return fluid.

15. The return-side filter as set forth in claim 14, further including a spacers projecting downwardly from the top surface of the lid and operable to space the filter media below the top surface.

16. The vehicle transmission as set forth in claim 14, wherein the return fluid is released into the sump.

17. The return-side filter as set forth in claim 14, further including a pan positioned below the filter media.

18. The return-side filter as set forth in claim 17, wherein the outlet comprises a slot in the pan.

19. A fluid filtration assembly for filtering a fluid in a vehicle transmission,  
the fluid filtration assembly comprising:

a return-side filter including -

a return-side inlet operable to receive a return fluid,

a return-side filter media operable to filter the return fluid, and

a return-side outlet operable to release the return fluid directly into a supply-side  
filter.

20. The fluid filtration assembly as set forth in claim 19, wherein the supply-  
side inlet and the return-side outlet are coupled by a flexible hose.

21. The fluid filtration assembly as set forth in claim 19, wherein the supply-  
side inlet and the return-side outlet are coupled by a substantially inflexible duct.

22. The fluid filtration assembly as set forth in claim 19, wherein the return-  
side filter media is operable to filter relatively small particulates from the return fluid.

23. The fluid filtration assembly as set forth in claim 19, wherein the supply-  
side filter is operable to filter the return fluid using a supply-side filter media.

24. A vehicle transmission, utilizing a fluid, the vehicle transmission comprising:

a sump operable to receive the fluid via a sump inlet and to release the fluid via a sump outlet; and

5 a fluid filtration assembly located in the sump and operable to filter the fluid, the fluid filtration assembly including -

a return-side filter including -

10 a return-side inlet coupled with the sump inlet and operable to receive at least a return fluid portion of the fluid,  
a return-side filter media operable to filter the return fluid,  
a return-side outlet operable to release the return fluid directly into a supply-side filter.

15 25. The fluid filtration assembly as set forth in claim 24, wherein the supply-side inlet and the return-side outlet are coupled by a flexible hose.

26. The fluid filtration assembly as set forth in claim 24, wherein the supply-side inlet and the return-side outlet are coupled by a substantially inflexible duct.

20 27. The fluid filtration assembly as set forth in claim 24, wherein the return-side filter media is operable to filter relatively small particulates from the return fluid.

25 28. The fluid filtration assembly as set forth in claim 24, wherein the supply-side filter is operable to release the return fluid into the sump outlet.

29. The fluid filtration assembly as set forth in claim 24, wherein the supply-side filter is operable to filter the return fluid using a supply-side filter media prior to releasing the return fluid into the sump outlet.

30

30. A method of filtering a fluid in a transmission, the method comprising the steps of:

- (a) receiving at least a return fluid portion of the fluid;
- (b) filtering the return fluid using a return-side filter media;
- (c) releasing the return fluid;
- (d) receiving a supply fluid; and
- (e) filtering the supply fluid using a supply-side filter media.

31. The method as set forth in claim 30, wherein step (b) is operable to remove relatively small particulates from the return fluid.

32. The method as set forth in claim 30, wherein step (c) involves releasing the return fluid into a sump.

33. The method as set forth in claim 32, wherein step (d) involves receiving the supply fluid from the sump.

34. The method as set forth in claim 30, wherein the supply fluid comprises the return fluid.

35. The method as set forth in claim 30, wherein step (e) is operable to remove only relatively large particulates from the supply fluid.